WE CLAIM:

1. A method for managing the forwarding of packets to a final destination, comprising:

(a) mapping each received packet to at least one of a plurality of queues, wherein the mapping is based on a kind of data included with each packet;

(b) providing a threshold that is compared to a differential that represents loading differences between a queue associated with the kind of data included in a received packet and another queue that is unassociated with the kind of data included in the received packet, wherein the queue associated with the kind of data included in the received packet is overloaded when the differential exceeds the threshold;

(c) when the differential exceeds the threshold and operational logic is valid, automatically changing the mapping of the received packet from the queue to the other queue, wherein the other queue is less loaded than the queue associated with the kind of data included in the packet when the differential exceeds the threshold; and

(d) forwarding each packet in each queue along a path towards the final destination, wherein the ordering of the forwarding of each packet is in accordance with a weight associated with each queue.

2. The method of Claim 1, wherein the packet is one of an Internet Protocol (IP) packet and an Asynchronous Transfer Mode (ATM) packet.

3. The method of Claim 1, further comprising providing a weight for each queue that is associated with each kind of data, wherein resources for forwarding each received packet in each queue are allocated in accordance with each weight provided to each queue, wherein the weight associated with each queue is unchanged during the forwarding.

4. The method of Claim 1, further comprising employing a remapping equation to determine when the differential exceeds the threshold and operational logic is valid.

5. The method of Claim 1, wherein the operational logic determines when both a forwarding priority value and a traffic aggregation value are greater for the received packet initially mapped to the queue associated with the kind of data included with the received packet than another forwarding priority value and another traffic aggregation value associated with each packet in the other queue that is unassociated with the kind of data included in the received packet.

6. The method of Claim 1, further comprising enabling automated provisioning of at least one of a forwarding priority value, traffic aggregation value and weight for each queue based on the kind of data included in each packet.

7. The method of Claim 1, further comprising enabling the threshold to be set to a sufficiently large value to prevent overloading of the other queue caused by relatively frequent changing of the mapping of received packets to the other queue.

8. The method of Claim 1, further comprising employ a connection associated with the received packet to determine the kind of data included in the received packet.

9. The method of Claim 1, further comprising examining the content of the received packet to identify the kind of data included in the received packet.

10. The method of Claim 1, subparagraph (a), wherein the mapping is based on Diffserv code points.

11. A router for forwarding packets to a final destination over a network, comprising:

(a) a transceiver for receiving and transmitting each packet over each network coupled to the router;

(b) a mapper that maps each received packet to at least one of a plurality of queues, wherein the mapping is based on a kind of data included with each received packet;

(c) a comparator that compares a provided threshold to a differential that represents loading differences between a queue associated with the kind of data included in the received packet and another queue that is unassociated with the kind of data included in the received packet, wherein the queue associated with the kind of data included in the received packet is overloaded when the differential exceeds the threshold;

(d) a remapper that automatically changes the mapping of the received packet from the queue to the other queue when the differential exceeds the threshold and operational logic is valid, wherein the other queue is less loaded than the queue associated with the kind of data included in the packet when the differential exceeds the threshold; and

(e) a scheduler that forwards each received packet in each queue along a path towards the final destination, wherein the forwarder orders the forwarding of each received packet in accordance with a weight associated with each queue.

12. The router of Claim 11, further comprising a base station that includes a wireless transceiver for wirelessly communicating with mobile devices and other base stations, wherein the router is internal to the base station.

13. The router of Claim 11, further comprising a classifier for determining the kind of data included in each received packet.

14. The router of Claim 13, wherein the classifier employs a connection associated with the received packet to determine the kind of data included in the received packet.

15. The router of Claim 13, wherein the classifier examines the content of the received packet to identify the kind of data included in the received packet.

16. The router of Claim 11, further comprising a weighter that enables a weight to be provided for each queue that is associated with each kind of data, wherein resources for forwarding each received packet in each queue are allocated in accordance with each weight provided to each queue.

17. The router of Claim 11, wherein the threshold is set to a value sufficiently large to prevent overloading of the other queue caused by relatively frequent changing of the mapping of received packets to the other queue.

18. The router of Claim 11, wherein the operational logic determines when both a forwarding priority value and a traffic aggregation value are greater for the received packet initially mapped to the queue associated with the kind of data included with the received packet than another forwarding priority value and another traffic aggregation value associated with each packet in the other queue that is unassociated with the kind of data included in the received packet.

19. The router of Claim 11, further comprising a provisioner for automatically providing at least one of a forwarding priority value, traffic aggregation value and weight for each queue based on the kind of data included in each packet.

20. The router of Claim 11, subparagraph (a), wherein the mapping is based on Diffserv code points.

21. The router of Claim 11, wherein the packet is one of an Internet Protocol (IP) packet and an Asynchronous Transfer Mode (ATM) packet.

22. A method for managing the forwarding of packets to a final destination, comprising:

(a) means for mapping each received packet to at least one of a plurality of queues, wherein the mapping is based on a kind of data included with each packet;

(b) means for providing a threshold that is compared to a differential that represents loading differences between a queue associated with the kind of data included in a received packet and another queue that is unassociated with the kind of data included in the received packet, wherein the queue associated with the kind of data included in the received packet is overloaded when the differential exceeds the threshold;

(c) means for automatically changing the mapping of the received packet from the queue to the other queue when the differential exceeds the threshold and operational logic is valid, wherein the other queue is less loaded than the queue associated with the kind of data included in the packet when the differential exceeds the threshold; and

(d) means for forwarding each packet in each queue along a path towards the final destination, wherein the ordering of the forwarding of each packet is in accordance with a weight associated with each queue.